Deseret Chemical Depot

Attachment 4

Contingency Plan

1.0 Purpose and Scope [R315-3-2.5(b)(7), R315-8-4]

1.1 The purpose of the Contingency Plan is to minimize hazards to human health or the environment from fires, explosions, or any unplanned release of hazardous waste or hazardous waste constituents from facilities associated with the Deseret Chemical Depot (DCD). DCD utilizes four plans to control the release of a hazardous material/waste. The Oil and Hazardous Substance Spill Prevention, Control, and Countermeasures Plan (SPCCP) is proactive, and describes controls designed to prevent spills or minimize the impact of spills of oil and hazardous substances to the environment. The Installation Spill Contingency Plan (ISCP) details what actions will take place if a non-agent-related spill or release occurs and the Chemical Accident/Incident Response and Assistance (CAIRA) Plan details what actions will take place if an agent-related spill or release occurs. If a disaster occurs as the result of natural forces, civil disturbances, major accidents or incidents, oil spills, hazardous substance pollution, or enemy action, the Emergency Control Plan (ECP) is implemented. Together, these four plans detail and implement contingency planning provisions.

2.0 Location of Installation

2.1 DCD is located approximately 12 miles south of Tooele City in Tooele County, Utah. Figure 6-1, Deseret Chemical Depot-General Site Map, shows the general layout of DCD. The primary mission of DCD is the storage and demilitarization of chemical warfare agent munitions. Hazardous waste activities performed at DCD are described in Attachments 1, 12, and 13, of this permit.

3.0 Name/Address/Telephone Number of Owner/Operator

3.1 DCD is operated by the Chemical Materials Agency (CMA) for the US Army. The address and telephone number for the operator is:

Commander, Deseret Chemical Depot
PO Box 250,
Stockton, UT 84071-0250
(435) 833-4434

4.0 Reporting of Spills [R315-8-4.7(a) and (d)]

4.1 Any employee who witnesses or discovers a spill or incident involving hazardous substances and determines that the incident requires emergency response is responsible for notifying the Fire Department (FD) by dialing 911. After receiving the 911 call, the On Scene Commander (OSC) shall activate the FD Hazardous Materials Team and notify the Installation On Scene Coordinator (IOSC) as described above. The IOSC must note in the operating record the time, the date, and the details of any accident/incident requiring the implementation of the Contingency Plan (i.e., a spill/release of a hazardous material/waste equal to or greater than the reportable quantity). The IOSC will initiate any required external reporting requirements as detailed in Section 10.0 below.

5.0 Location of Hazardous Waste Storage Facilities

5.1 Hazardous wastes associated with chemical agent operations are stored such that chemical surety is maintained for chemical agents. All hazardous wastes, agent-related and non-agent-related, are stored in a manner to facilitate accountability and control. Locations of hazardous waste storage facilities can be found on Figure 6-1 in Attachment 6.

5.2 Permitted storage igloos located in Area 10 are used for storage of overpacked waste chemical agent munitions, ton containers managed as hazardous waste, agent-related secondary waste, and non-agent hazardous wastes. Wastes stored in Area 10 are primarily those containing free liquids, although wastes without free liquids may be stored in Area 10.

5.3 Permitted storage facilities located in Area 2 and other areas of DCD are primarily used for storage of agent-related and non-agent-related hazardous wastes with and without free liquids. Containerized agent-related and non-agent-related wastes without free liquids are stored in Building 4536. Building 4107 and the ventilated vault in Building 4553 store agent-related and non-agent related wastes with and without free liquid in containers. Waste pile storage is also contained in Building 4107. The Open Burning/Open Detonation (OB/OD) Conex container is located in the OB/OD area of DCD. The purpose of the OB/OD Conex is to store containers of conventional munitions that have been designated as hazardous waste. Non-agent-related hazardous wastes generated by support activities are stored in 90-day storage areas, and then are shipped to a licensed Treatment, Storage, and Disposal Facility (TSDF).

6.0 General

6.1 Implementation [R315-8-4.2(b), R315-8-4.3]

6.2 The IOSC will ensure that an incident log is kept for all spills and releases this log is currently maintained by the Emergency Operations Center (EOC).

6.3 The IOSC will maintain a current ISCP that will be reviewed and evaluated at the same time as the SPCCP. The SPCCP will be reviewed and evaluated at least once every 3 years, or when material changes in facility design, operation, or maintenance are made that would affect the potential for a release of oil or hazardous substances to the environment per 40 CFR § 112.5, which requires that any change be entered into the plan within six months of that change. Any amendment made to the SPCCP must be reflected in the ISCP. It will be the responsibility of DCD to ensure that copies of the SPCCP, the ISCP, and all revisions to the plans are:

6.3.1 Maintained at the facility;
6.3.2 Submitted to the DCD fire departments;

6.4 The SPCCP describes the sites at DCD with a potential to release oil or regulated material/waste, and describes the controls designed to prevent spills or minimize the impact of spills on the environment. The SPCCP provides:

6.4.1 The objectives of the plan, a description of the facility, a description of the surface water location and characteristics, a list of historical spills, and a list of spill control personnel;
6.4.2 The spill prevention, control, and countermeasure requirements;

6.4.3 A description of operational activities that may potentially cause a spill and the preventative measures or controls to be used for each site; and

6.4.4 The implementation of security, training, inspections, and record keeping.

6.5 The ISCP identifies resources, equipment, personnel, and procedures to be used to prevent oil or non-agent-related hazardous material/waste spills from reaching surface and subsurface water. The ISCP is also designed to minimize hazards to human health and the environment from fires, explosions, or any unplanned sudden or gradual release of oil or non-agent-related hazardous material/waste to air, soil, or surface water, and will be carried out whenever any of these incidents occur. The ISCP provides:

6.5.1 Identification of the IOSC, the DCD FD, and their responsibilities for implementing the plan;
6.5.2 A discussion of the roles of various other DCD personnel; and
6.5.3 A discussion of the implementation of the ISCP including actions to be taken during an oil or non-agent-related hazardous material/waste spill.

6.6 In the event of a chemical accident/incident involving a spill or release, the CAIRA Plan assumes operational priority and is executed by the installation commander. The CAIRA Plan provides procedures for evacuation, containment, decontamination, cleanup, recovery, and remedial operations.

7.0 Emergency Coordinators [R315-8-4.3(c), R315-8-4.6]

Emergency Coordinators		
Name	**Title**	**Telephone Number**
Primary		
Tracy Dauwalder	Director of Mission Operations	Office (435) 833-4197 Home: (801) 489-3966
Alternate 1:		
Troy Johnson	Environmental Program Manager	Office (435) 833-4198 Home: (435) 884-6120

7.1 This section describes the emergency response organization and designated emergency coordinators and other personnel at DCD. Directorates will provide personnel, equipment, and expertise for proper response to spills of oil or non-agent-related hazardous material/waste, as described in the SPCCP and ISCP. Emergency response organization and responsibilities for agent-related accidents and incidents are described in the CAIRA Plan.

7.2 The DCD Emergency Operations Center (EOC), which is staffed 24 hours a day, seven days a week, is the top-level emergency contact for the DCD facility. When notified of an emergency condition, EOC staff will call up the appropriate emergency coordination personnel in accordance with the DCD Contingency Plan. Table 4-1 lists contact information for the key state and federal response agencies and the EOC.

Table 4-1: Telephone Numbers and Addresses for Key Organizations		
Title	**Address**	**Telephone Number**
Utah Department of Environmental Quality	24-hour Answering Service	801-536-4123
National Response Center	NA	(800) 424-8802
DCD Emergency Operations Center	Building 5108, DCD Administrative Area	(435) 833-4700

8.0 Surveillance Procedures for Early Detection of Spills

8.1 Currently, DCD performs all air monitoring and inspection according to local Standing Operating Procedure (SOPs). Monitoring activities are optimized for agent detection. The igloos used to store overpacked chemical munitions, and waste VX ton containers will be monitored through the headwall on a weekly basis using agent detection equipment. Visual inspections are also employed to detect liquid agent spills because the low vapor pressure of agent can limit detection in the vapor phase. Visual inspection of all waste chemical munition containers and ton containers is performed semiannually. New munition overpacks are inspected upon receipt, and again immediately before use if they have not been inspected within the last 90 days.

8.2 All hazardous waste containers are inspected weekly for corrosion, damage, spills, deterioration, and other conditions that could affect container integrity. In addition to examining the physical conditions of containers, all DCD hazardous waste container inspections cover:

8.2.1 Facility operating record requirements,
8.2.2 Container labeling requirements,
8.2.3 Storage location requirements, and
8.2.4 Aisle space requirements.

9.0 Installation On Scene Coordinator [R315-8-4.3(a), R315-8-4.6]

9.1 The responsibilities of the IOSC include:

9.1.1 Identification of the character, source, and size of the area affected by the spill;
9.1.2 Assessment of possible direct or indirect hazards to human health and the environment as a result of the spill;
9.1.3 Determination of the need for agency notification;
9.1.4 Requests for additional manpower and resources if required; and
9.1.5 Coordination of mitigation, cleanup, and reporting procedures.

9.2 The IOSC is responsible for assessing the potential impact of an incident/accident, coordinating the deployment of personnel and equipment for mitigation, and reporting the incident to the EOC. The IOSC will coordinate and direct all Army efforts to control and clean up non-agent-related spills or releases caused by the Army, tenants, or other agencies within facility boundaries. The Advisory/Support Group will support the IOSC, as necessary.

9.3 A minimum of one employee qualified to act, as the IOSC must be available at all times. The IOSC will be responsible for coordinating all non-agent-related emergency response measures. The IOSC must be thoroughly familiar with all aspects of the Contingency Plan, which includes the SPCCP, the ISCP, as well as all operations and activities at the installation, the location and characteristics of wastes handled, the location of pertinent records at the installation, and the installation layout. The IOSC has the responsibility to:

9.3.1 Notify and deploy the DCD FD;
9.3.2 Determine the magnitude of the spill;
9.3.3 Notify the Installation Commanding Officer;
9.3.4 Seek immediate medical attention for those individuals involved in the spill;
9.3.5 Make necessary notifications to Security, the Advisory/Support group, and the CMA Environmental and Chief Counsel offices;
9.3.6 Arrange for contracts with offsite disposal facilities and cleanup contractors;
9.3.7 Determine the quantity of material released and determine whether a reportable quantity of oil or hazardous material/waste was released to the environment; and
9.3.8 Make necessary notifications to UDSHW and USEPA.

10.0 Initial Response Actions for EOC [R315-8-4.3(a)]

10.1 The EOC will be utilized whenever there is an imminent emergency situation. The IOSC will assess the severity of the accident/incident and determine whether EOC activation is necessary. The EOC will immediately implement procedures to recall essential personnel.

11.0 Emergency Spills

11.1 Any employee who witnesses or discovers a spill or incident involving hazardous substances, and determines that the incident requires an emergency response or involves an unknown substance, shall call the DCD FD by dialing 911. In no instance shall the discoverer or other person endanger their personal safety to control the spill or release. After receiving a 911 call, the FD supervisor (OSC) shall activate the FD Hazardous Materials Team, notify the IOSC, and commence mitigation procedures.

11.2 The IOSC, or alternate, will report to the EOC. From the EOC, the IOSC will communicate with the OSC and mobilize the FD as necessary. The Incident Command System (ICS) will be implemented from the EOC. All FD members will operate within the ICS. Initial response to emergency spills may require the immediate area to be evacuated.

11.3 The FD Hazardous Materials Team will remain at the incident site until the emergency is brought under control. When the emergency situation has been brought under control, the IOSC will direct one of the other groups (facilities, local area responders, HW management, employees, etc.) to complete the cleanup operations, and report the incident to the Director of Risk Management (DRM).

12.0 Non-Emergency Spills (Incidental Releases)

12.1 Non-emergency spills shall be cleaned up using locally available materials and manpower, and will be reported as soon as possible to the DRM in accordance with the site-specific spill response instructions posted in the immediate area. The DRM will

report all spills at or above the reportable quantity to the appropriate state and federal agencies.

13.0 Agent-Related Spills

13.1 For suspected agent or agent-related spills, emergency response procedures outlined in the CAIRA Plan should be initiated.

14.0 Spill Response, Duties, and Responsibilities

14.1 Fire Department

14.1.1 The DCD FD supervisor shall assume the role of OSC. The OSC directs the actual cleanup operations at the site of the incident, with the assistance of the DCD FD Hazardous Materials Team. The DCD FD Hazardous Materials Team is the most highly trained and equipped group on the installation for spill response and is responsible for entering the spill area and mitigating releases of hazardous materials or waste. The participation of the FD Hazardous Materials Team will be limited to incidents involving real or suspected emergency hazards. It is the responsibility of trained workers at potential spill sites to respond to and clean up all non-emergency releases in their own work areas.

14.2. Advisory/Support Group

14.2.1 The advisory/support group is composed of the principal DCD divisions that will assist the IOSC in an emergency response situation. Members of this group and their responsibilities are listed below.

14.2.1.1 Director of Risk Management: Assists with the evaluation of environmental threats, proper disposal and management of wastes, technical guidance, and reporting to outside agencies as required by regulations.

14.2.1.2 The Installation Safety Officer provides site-specific information on chemical and other hazards at depot facilities including Material Safety Data Sheets (MSDSs), Personal Protective Equipment (PPE) information, sampling/monitoring data, chemical hazards and other emergency response information. Other responsibilities include the establishment of control zones based upon the evaluation of hazards, ensuring that proper decontamination procedures are in place, and documentation of site activities.

14.2.1.3 The IOSC and/or OSC provides monitoring of the scene and determine the extent of contamination around the scene and will use monitoring information to determine evacuation priorities.

14.2.1.4 U.S. Army Health Clinic: Includes all DCD Emergency Medical Technicians (EMTs) and paramedics. Responsibilities include medical surveillance and support for the FD Hazardous Materials Team and emergency medical treatment and ambulance service for incident victims. All functions of the DCD EMTs and paramedics are performed outside of the contamination zone.

14.2.1.5 Public Affairs Office (PAO): The PAO may be called upon by the IOSC to interface with the news media in the event that a hazardous substance escapes from the installation and threatens the public.

14.2.1.6 Contract Officer: The responsibility of the Contract Officer is to initiate a contract for spill cleanup by private contractor if directed by the IOSC. Cleanup contractors may be used when spill cleanup operations impair the primary mission of DCD, or when the

spill exceeds the capabilities of the installation. Contractors will be tasked to clean up any non-emergency spill requiring greater than Level "C" protection.

14.3 Local Area Responders

14.3.1 Local area responders are DCD personnel who regularly work in hazardous waste management facilities having a potential for spills of hazardous substances. Their responsibilities include cleaning up small or large incidental spills (non-emergency) of substances for which they are equipped and trained, and with which they are familiar. This includes stopping or containing flows, diking, repairing leaks; containerizing and labeling spilled wastes, and notification of the IOSC. For larger non-emergency spills, this group may be called upon by the IOSC to assist in the cleanup of spills in areas other than where they ordinarily work.

14.4 Hazardous Waste (HW) Management Facility Employees

14.4.1 The responsibilities of this group are similar to those of the Local Area Responders except that these individuals are members of the DCD Hazardous Waste Management Program (HWMP). The HWMP is for all employees who work at permitted hazardous waste management facilities. All HWMP members receive Resource Conservation and Recovery Act (RCRA) hazardous waste management training.

14.5 Directorate for Law Enforcement and Security

14.5.1 The function of this group is to control traffic and crowds associated with an incident, and to assist the OSC with emergency evacuation and isolation.

14.6 Director of Public Works

14.6.1 The Director of Public Works provides heavy equipment support as instructed by the IOSC. The DPW may be called upon to disconnect electrical power when deemed necessary by the OSC.

14.7 CMA Office of Chief Counsel

14.7.1 The CMA Office of Chief Counsel assists the IOSC in ensuring that all record-keeping and sampling activities initiated during a response action will be conducted according to applicable rules and regulations.

15.0. Spill Response Mobilization Procedures

15.1 Notification [R315-8-4.7(a) and (d)]

15.1.1 Any employee who witnesses or discovers a spill or incident involving hazardous substances and determines that the incident requires emergency response is responsible for notifying the FD by dialing 911. After receiving the 911 call, the OSC shall activate the FD Hazardous Materials Team and notify the IOSC as described above. The IOSC must note in the operating record the time, the date, and the details of any accident/incident requiring the implementation of the Contingency Plan (i.e., a spill/release of a hazardous material/waste equal to or greater than the reportable

quantity). The IOSC will initiate any required external reporting requirements as detailed in Section 22.0 below.

15.2 Identification of Hazardous Materials [R315-8-4.7(b)]

15.2.1 Following the occurrence of a release, fire, or explosion, the IOSC must identify the character, exact source, amount, and the size of the area affected by any released materials. Primary identification of released hazardous materials/wastes will depend on the ability of the IOSC to trace the discharge to its source. For the majority of incidents, the workers in the area will be familiar with the substance or waste (user knowledge) and will be able to make a positive identification. Other sources of identification information include: MSDSs, military specifications, labels, manifests, inventory records, and chemical databases. Whenever possible, container labels will be preserved to include a complete identification for preparing incident reports. When identification is not possible by these methods, samples will be collected and analyzed. A detailed description of hazardous materials managed at DCD is provided in Attachment 1 (Waste Analysis Plan).

15.3 Assessment [R315-8-4.7(c) and (d)]

15.3.1 The IOSC, in coordination with appropriate state, federal, and local authorities, must assess possible hazards to human health or the environment that may result from a release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion. To assist the IOSC in assessing the hazards, the following information will be considered:

15.3.1.1 Whether the nature of the hazard is known, unknown, or can be reasonably assumed;
15.3.1.2 The degree of toxicity of the material;
15.3.1.3 The presence of toxic, irritating, or asphyxiating gases which may be present as a result of controlling a fire;
15.3.1.4 Containment of a spill or lack of containment;
15.3.1.5 Uncertainty as to the extent of migration of wastes or water used in fire control to either the groundwater or surface water; and
15.3.1.6 The ability of response teams to contain the emergency.

15.3.2 If the IOSC determines that the facility has had a release, fire, or explosion that could threaten human health or the environment outside the facility, the IOSC must report those findings according to the following procedures.

15.3.2.1 If the assessment indicates that evacuation of local areas may be advisable, the OSC must immediately notify local emergency management agencies. The IOSC must be available to assist officials to decide whether local areas should be evacuated.
15.3.2.2 The IOSC must immediately notify the National Response Center (NRC) (800) 424-8802. The report must include:

15.3.2.2.1 The name and telephone number of the person making notification;
15.3.2.2.2 The name and address of the facility;
15.3.2.2.3 The time and type of incident (e.g., spill, fire, explosion);
15.3.2.2.4 The name and quantity of material involved to the extent known;
15.3.2.2.5 The extent of injuries, if any; and

15.3.2.2.6 The possible hazards to human health or the environment outside the facility.

15.4 Response During Off Duty Hours [R315-8-4.3(a), R315-8-4.7]

15.4.1 The spill response procedure for off-duty hours is the same as for normal hours, with the following exceptions:

15.4.1.1 During off-duty hours, the IOSC and Advisory/Support Group are not present, and members or alternates may have to be called or report to the incident site if required by the OSC; and

15.4.1.2 The U.S. Army Health Clinic function will be replaced with a contracted ambulance and EMT crew.

16.0 Spill Mitigation and Cleanup

16.1 Control Procedures [R315-8-4.7(e) and (g)]

16.1.1 Following implementation of the initial response procedures outlined above and detailed in the appropriate response plans, steps to control and mitigate the release will be initiated. Site- specific and material-specific spill response procedures are located in each of the hazardous waste storage facilities. General spill control procedures are discussed below.

16.1.1.1 Stopping the Spill: If possible, the spill flow should be stopped by turning off pumps, closing valves, returning containers to an upright position, patching holes, transferring material to another container, or moving the container to a more secure location.

16.1.1.2 Containment: In all cases, response personnel should attempt to confine the spill in the smallest area possible using earthen dams, berms, and/or other man-made barricades. Inlets to sewer or storm water systems will be blocked or bermed. Response personnel must ensure that drainages are protected. Spill kits containing absorbent material and other containment supplies are available throughout the facility.

16.1.1.3 Removal: Larger volumes of oil or liquids will be removed with pumps, if possible. Sorbent materials will be used to absorb smaller amounts of oil or hazardous constituents. On water, only floating or retrievable sorbent products should be used. Regulator approval is required for the use of either sinking or dispersing agents.

16.1.1.4 Reclamation: When possible, hazardous materials will be reclaimed and containerized. An attempt will be made to reclaim and recycle waste oil or other hazardous material/waste. Leaking hazardous waste containers are generally not repaired, but will be placed into an overpack drum. Various types of emergency leak repair kits are maintained and may be used as a temporary measure until the drum can be properly contained.

16.1.1.5 Storage: Any material recovered from a spill of oil or hazardous substances will be managed as hazardous waste unless it is analyzed and determined to be non-

hazardous. Waste analysis procedures are outlined in Attachment 1 (Waste Analysis Plan (WAP)).

16.1.1.6 Disposal: All oil, gas, or other substances not usable after reclamation will be characterized and disposed of in accordance with state and federal regulations. Soil contaminated with oil or hazardous materials/wastes will be removed with hand tools, heavy construction equipment, or both. Contaminated soil will be assessed to determine appropriate management actions. Disposal alternatives will conform to appropriate federal and state regulatory requirements.

16.1.1.7 Restoration: The area of contamination will be restored to its original (pre-spill) condition. Any contaminated soil that is removed will be replaced by clean fill. Necessary re-vegetation and erosion control measures will be implemented.

16.1.1.8 Decontamination: All equipment and clothing will be decontaminated in accordance with decontamination practices described in local standing operating procedures (SOPs). When working with certain hazardous materials/waste, it may be necessary to properly dispose of the hand tools, overshoes, and gloves with the waste. Any equipment used during the response procedures should be cleaned and fit for its intended use.

17.0 Storage and Treatment of Released Material [R315-8-4.7(g)]

17.1 Any recovered waste, contaminated soil or water, or other material generated as a result of a spill incident and clean up activities will be handled and managed as a hazardous waste unless it is analyzed and determined to be non-hazardous. All material will be properly disposed of in accordance with federal and state regulations.

17.2 Soil contaminated with oil or hazardous materials/wastes will be removed with the appropriate removal equipment, such as hand tools for small removals, or heavy construction equipment (backhoes, scoop loaders, etc.) for larger removals. Contaminated soil will be assessed to determine appropriate management actions.

17.3 Spilled or contaminated material resulting from a hazardous material/waste accident or incident will be collected immediately, characterized, and placed in appropriate hazardous waste storage units until final disposal. For chemical agent spills, procedures detailed in the CAIRA Plan will be followed.

18.0 Incompatible Waste [R315-8-4.7(h)(1)]

18.1 At no time during a response to an accident or incident shall incompatible materials be stored or transported together. In the event that a waste that is incompatible with wastes or materials already stored at a given location is spilled, the incompatible materials or wastes will be moved to a temporary location until the spilled waste is completely cleaned up or neutralized.

19.0 Post-Emergency Equipment Maintenance [R315-8-4.7(h) and (i)]

19.1 After an emergency event, all emergency equipment that was used will either be cleaned so that it is fit for reuse, or it will be replaced. The equipment and protective clothing will be washed with the proper decontamination solution, or discarded and replaced with

new equipment or clothing. Before operations resume, the Chemical Operations Director will perform an inspection of all safety equipment used and decontaminated after the emergency response. When the inspection is completed, the IOSC will notify the state and local authorities, and the Major Command of the status of the emergency equipment and the status of the return to normal operations.

20.0 Prevention of Recurrence or Spread of Fires, Explosions, or Releases [R315-8-4.7(e)]

20.1 During an emergency, the IOSC must implement all measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous materials or wastes at the installation. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

20.2 If a facility on the installation stops operations in response to a fire, explosion, or release, the IOSC must ensure that all valves or pipes and other related, affected equipment are monitored for potential leaks, pressure build-up, gas generation, and ruptures.

20.3 Some munitions in the permitted storage igloos contain explosives (bursters, propellant, and fuzes). Detonation of an explosively configured munition presents not only a hazard to personnel and property from the blast effects, but also a hazard from the spread of chemical agent. Requirements for safely handling, transporting, and storing ammunition and explosives are described in the following regulations and standards:

20.3.1 Local SOPs;
20.3.2 Federal Register, 53 FR, 8504-8507;
20.3.3 Army Materiel Command Regulation (AMCR) 385-100, Safety Manual;
20.3.4 Military Standard (MIL-STD)-882-C, Military Standard System Safety Program Requirements;
20.3.5 Technical Manual (TM) 9-1300-214, Military Explosives;
20.3.6 Department of Defense Explosives Safety Board (DDESB), Explosive Safety Standard 6055;
20.3.7 Army Regulation (AR) 385-64 and Department of Army Pamphlet (DA PAM) 385-64 for explosives; and
20.3.8 AR 385-61 and DA PAM 385-61 for chemical agents.

20.4 An explosion creates a fire hazard as well as hazards from blast effects and projectiles. The IOSC will respond to fires or explosions occurring in the DCD hazardous waste storage units, unless the fire/explosion is beyond the capabilities of these two units. For non-agent-related fires only, local fire departments may be called in to supplement onsite capabilities. Where chemical agents are involved, the DCD FD and Hazardous Materials Team will respond. In accordance with AMCR 385-100, if a fire involves explosive materials or is supplying heat to explosives, or if the fire is so large that it cannot be extinguished with the equipment at hand, the personnel involved will evacuate and seek safety. All fire response personnel will be provided with appropriate protective clothing and safety equipment. Care will be taken to contain and recover any runoff of waste, water, foams, or chemicals applied to the fire. If possible, the area will be bermed and/or any run-off drains blocked prior to applying liquids to the fire. Once extinguished, the materials involved in the fire and surrounding area will be decontaminated (if necessary), recovered, and placed in containers for proper storage and disposal.

20.5 In the event of a fire, the major effort will be focused on preventing the fire from spreading to nearby areas. The following actions will be taken for indoor areas affected by a fire or explosion.

20.5.1 Personnel will close fire doors in buildings;
20.5.2 Work in all areas will be terminated immediately;
20.5.3 The FD and OSC will be contacted;
20.5.4 All personnel not actively involved in fighting the fire will clear the area;
20.5.5 Non-emergency personnel will report to the designated assembly point for a head count; and
20.5.6 All injured persons will be removed and qualified personnel will administer medical treatment.

20.6 If the FD decides that the chances of an explosion are high, the entire area within a 2,000-foot radius of the source will be evacuated. All personnel will be trained in evacuation procedures and means of exit from their respective work areas (see Section 25.0 below).

20.7 Until evacuation is signaled, personnel who are not in an affected area will stay in their respective work areas. Visitors will be cleared from the area and instructed to report to a designated assembly point. The FD will be responsible for all fire-fighting efforts until help from outside sources arrives. Supervisors of unaffected areas will stay with their personnel and will be ready to evacuate and account for the persons under their supervision.

20.8 An "all clear" signal will be given when the fire has been extinguished, personnel are no longer endangered, and the FD has determined the emergency has passed. All emergency equipment used in the emergency response will be cleaned and decontaminated.

20.9 Before operations are resumed, the IOSC will be responsible for conducting an inspection of all safety equipment to ensure that the equipment is fit for future use. When the inspection is completed, the IOSC will notify the State, and local authorities, and Major Command that the response operations have been satisfactorily completed. The FD will also inform the IOSC and the OSC of the status of the emergency equipment and when normal operations can resume.

21.0 Cleanup Resources [R315-8-4.3(d)]

21.1 Tables 4-2 through 4-7 list the equipment available for use during an emergency response at the different waste storage areas at DCD. All of these resources are available for use by the Regional Response Team (RRT). The IOSC will coordinate with the installation commander and determine what resources are needed to support the RRT.

Table 4-2: DCD Emergency Heavy Equipment			
Equipment	**Capability**	**Qty**	**Location**
Fire truck-Pumper	500 gallon capacity (1000 GPM)	1	Fire Station (Bldg. 5010)
Fire truck-brush truck	1000 gallon capacity (250 GPM)	1	Fire Station (Bldg. 5010)
Fire truck-equipment truck	½ ton	1	Fire Station (Bldg. 5010)
Fire truck-crash truck	Foam, dry chemical, water capability	1	Fire Station (Bldg. 5010)
Ambulance	Medical assistance, evacuation	3	Fire Station (5010) Area 10
Bulldozer	Brushfire control, spill cleanup, diking, grading	1	Building 5134
Loader	Front end scoop, 18 cubic yard (y3) capacity	1	Building 5134
Backhoe	Wheel-type, ditch digging, excavation	1	Building 5134

Table 4-3: Area 10 Emergency Equipment and Supplies			
Equipment	**Capability**	**Qty**	**Location**
Decontamination trucks	M-12 decontamination apparatus, 300 gal capacity	1	Trucks in Area 10
Aid Trucks	First aid/cleanup. Equipment: PPE, blankets, first aid kit, plastic sheeting, slurry can, buckets, mops, shovels	1	Aid trucks in Area 10
Hand Tools	Small spill cleanup: shovels, brooms, mops	AR	Area 10
Fire Extinguisher	ABC Type	1	Aid Truck
Communication Systems	Land-line telephones, cellular telephones, hand-held radios, intercom system, motion detection system, fire alarm system, evacuation alarm system	AR	Area 10
Safety Showers	Personnel decontamination	1	Area 10
Eyewash	Eye protection	1	Area 10
Protective Clothing	Personnel protection	AR	Area 10
Spill Kit	Spill cleanup	1	Area 10
AR: As Required			

Table 4-4: Building 4536 and 4553 Emergency Equipment **When unit is in use and waste is present.*			
Equipment	**Capability**	**Qty**	**Location**
Hand Tool*	Small spill cleanup: shovels, brooms	2	Building 4536 & 4553
Fire Extinguisher	CO2	2	Building 4536 & 4553
Fire Extinguisher*	CO2	1	Transport vehicle
Communication System*	Hand-held radios, cellular phones	1	Transport vehicle
Portable Eye Wash*	Eye cleanup	1	Transport vehicle
Absorbent Material*	Spill cleanup	1	Building 4536 & 4553
Eye Shield*	Eye protection	1	Building 4536 & 4553
Protective clothing*	Personnel protection: coveralls	2	Building 4536 & 4553
Gloves*	Hand protection: cloth and rubber gloves	2	Building 4536 & 4553

Table 4-5: Area 2 Emergency Equipment			
Equipment	**Capability**	**Qty**	**Location**
Hand Tools	Small spill cleanup: shovels, brooms	AR	Building 4107
Fire Extinguisher	CO2	2	Building 4107
Fire Extinguisher	CO2	1	Hazardous waste (HW) transport vehicle*
Communication System	Hand-held radios, cellular phones	1	HW Transport vehicle
Portable Eye Wash	Eye cleanup	1	HW Transport vehicle
Absorbent Material	Spill cleanup	AR	Building 4107
Eye Shield	Eye protection	AR	Building 4107
Protective clothing	Personnel protection: coveralls	AR	Building 4107
Gloves	Hand protection: cloth and rubber gloves	AR	Building 4107
AR: As Required * The HW Transport Vehicle will be present during all hazardous waste operations.			

Table 4-6: Open Burning/Open Detonation (OB/OD) Emergency Equipment *When unit is in use and waste is present.*			
Equipment	**Capability**	**Qty**	**Location**
Bulldozer	Brushfire control, spill cleanup, diking, grading	1	OB/OD Area
Spill Kit	Overpack drum containing: 2 Tyvek suits, 2 50-pound bags of absorbent, 2 pairs rubber gloves	1	Near Conex door.
Hand Tools	Small spill cleanup: shovels, brooms	AR	HW Transport Vehicle*
Flame Retardant Explosive Handler Coveralls	Personnel protection	AR	HW Transport Vehicle*
Non-Sparking Safety Shoes	Foot protection	AR	HW Transport Vehicle*
Hard Hats	Head protection	AR	HW Transport Vehicle*
Leather, Flame-proof Gloves	Hand protection	AR	HW Transport Vehicle*
Safety Glasses	Eye protection	AR	HW Transport Vehicle*
Flak Jackets	Personnel protection	AR	HW Transport Vehicle*
Kevlar Helmets	Head protection	AR	HW Transport Vehicle*
Communication System	Hand-held radios	1 ea.	Vehicles/personnel
Road Barriers	Roadblocks	AR	HW Transport Vehicle*
Fire Extinguisher	CO2	1 ea.	Vehicles
Eye Wash	Eye cleanup	AR	HW Transport Vehicle*
AR: As Required * The HW Transport Vehicle will be present during all hazardous waste operations.			

22.0 Reporting Requirements [R 315-8-4.7 (d)(2), R315-8-4.7(j), R315-9]

22.1 Personnel working in potential spill site areas will follow site-specific instruction for reporting spills. These instructions are located in each of the hazardous waste storage facilities.

22.2 Telephonic Spill Reporting

22.2.1 The IOSC must contact the Executive Secretary or his designee during normal business hours (8 AM -5 PM Monday through Friday) (801) 538-6170. During non-business hours the IOSC must contact the Utah State Department of Environmental Quality (24-hour Answering Service, 801-536-4123) and the National Response Center (800-424-8802) immediately following the release of a reportable quantity. The contingency plan is activated in the event of a spill exceeding the following quantities:

22.2.1.1 One kilogram of any acutely hazardous waste identified in R315-2-11(e),. Notification will also be made for a spill of a lesser quantity of acutely hazardous waste if there is a potential threat to human health or the environment.

22.2.1.2 Any spill of P999 and F999 must be reported.

22.2.1.3 Any vapor reading of chemical agent (P999)
22.2.1.4 One hundred kilograms of other hazardous waste.

22.2.2 The following information is required when providing immediate reporting of the spill.

22.2.2.1 Name, phone number, and address of person responsible for the spill (IOSC).
22.2.2.2 Name, title, and phone number of individual reporting.
22.2.2.3 Time and date of the spill.
22.2.2.4 Location of the spill, as specific as possible, including nearest town, city, highway, or waterway.
22.2.2.5 Description of the material and the amount spilled.
22.2.2.6 Cause of the spill.
22.2.2.7 Emergency action taken to minimize the threat to human health and the environment.

22.2.3 Spills occurring during transportation of hazardous waste by air, rail, highway, or water have additional reporting requirements detailed in R315-9-1.

22.3 Written Spill Reports

22.3.1 Within 15 days after a spill in excess of a reportable quantity, a written report must be submitted to the UDSHW in accordance with R315-9-4. The written report will be hand carried or sent by certified mail or an overnight delivery service, and will include the following information:

22.3.1.1 Name, address, and telephone number of the IOSC (person reporting the spill);
22.3.1.2 Name, address, and telephone number of the facility;
22.3.1.3 Date, time, and type of incident (e.g., spill, fire, explosion);
22.3.1.4 Name and quantity of material(s) involved;
22.3.1.5 The extent of injuries, if any;
22.3.1.6 An assessment of actual or potential hazards to human health or the environment, when applicable; and
22.3.1.7 An estimate of the quantity and disposition of recovered material that resulted from the incident.

22.4 Reports to the Public

22.4.1 All spill reports submitted to outside agencies will be forwarded through the PAO to the installation commander's office. The IOSC shall maintain copies of written spill reports on file. Spill information for release to the public shall be reviewed by the Depot Systems Command Environmental Office and approved by the installation commander. Information will be released to the public in accordance with facility guidance. The PAO is responsible for providing information to the public.

23.0 Training

23.1 See Attachment 3 (Training Plan) for the DCD Training Plan, including emergency response training.

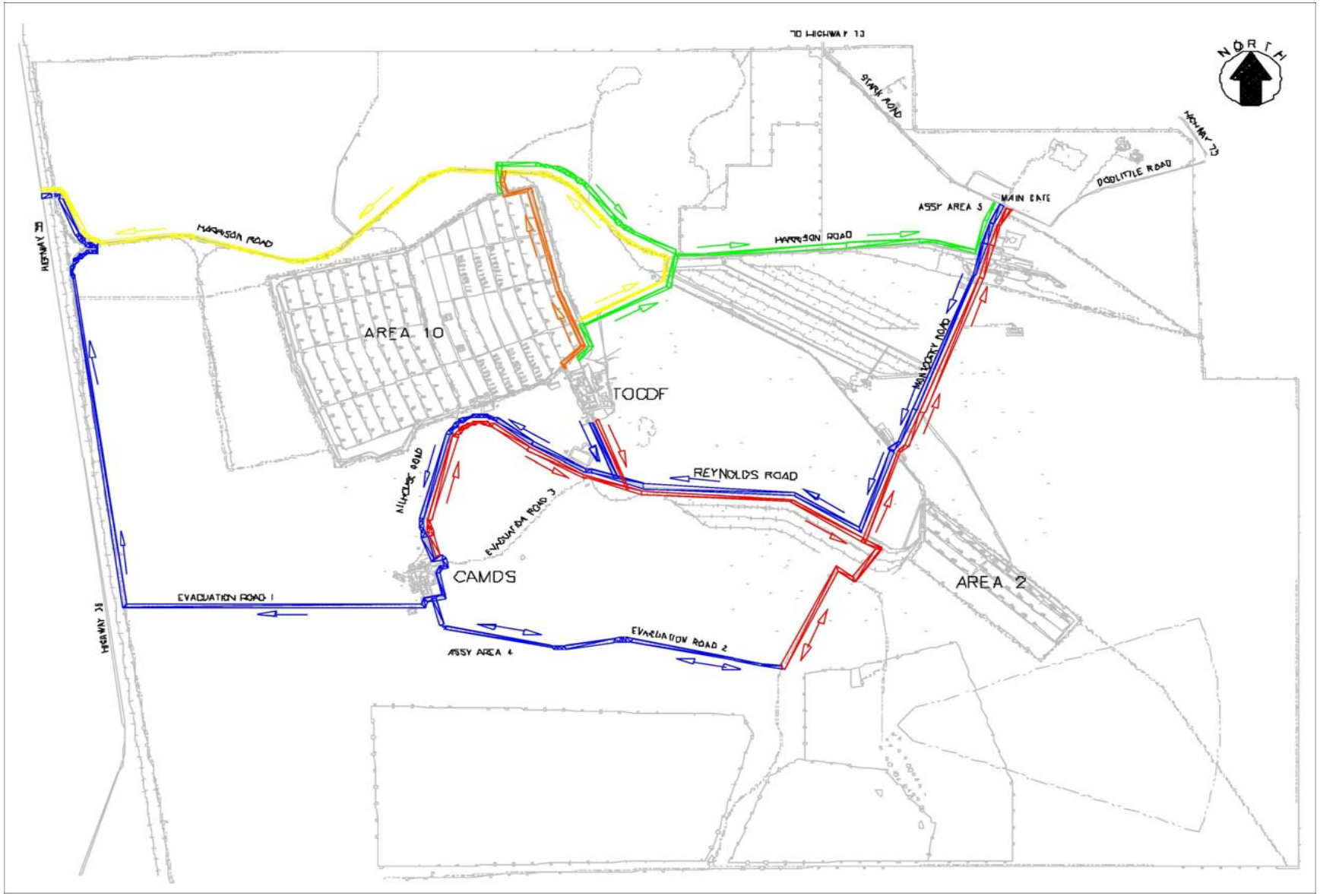
24.0 Extremely Hazardous Wastes

24.1 UHWR lists waste chemical agents and agent-related secondary wastes and residues as acutely hazardous wastes as defined in R315-2-11(e)(1). Neat waste agents of all types are assigned a waste code of P999. Agent-related secondary wastes and residues from all types of agent are identified by waste code F999.

24.2 Extremely hazardous agent-related wastes are stored in permitted igloos in Area 10. Overpacked leaking chemical munitions, ton containers of chemical agent, and other chemical munitions that the Army has designated as waste are categorized as extremely hazardous agent-related wastes, as discussed above. Secondary agent-related extremely hazardous wastes are stored in permitted igloos in Area 10, as well as in storage units in Area 2 and other areas at DCD. Buildings 4107, and the ventilated vault in Building 4553, are all permitted for the storage of extremely hazardous agent-related waste, but are predominantly used for the storage of secondary agent-related extremely hazardous waste.

25.0 Evacuation Procedures and Routes [R315-8-4.3(e)]

25.1 In the event of a health-, safety-, or life-threatening accident, the involved facilities will be evacuated in accordance with the evacuation plan for that location. A steady, continuous alarm with an air horn, siren, or vehicle horn will indicate that the site is being evacuated. The supervisor of the facility, or an assigned alternate, will determine the presence or absence of all employees when they have assembled at the waiting area specified by security personnel.



Site Evacuation Map

26.0 Arrangements with Local Agencies [R315-8-4.3(b), R315-8-3.7]

26.1 DCD maintains its own security police force, fire department, and health clinic. These groups will be the first to respond to an emergency. In addition, reciprocal agreements have been made within local agencies in the region to coordinate emergency services. Medical services have been coordinated with Latter Day Saints Hospital, University of Utah Hospital, Mountain West Medical Center, Utah Valley Regional Medical Center, Salt Lake Regional Medical Center and the U.S. Army Health Clinic in Dugway. Ambulance services have been contracted to Mountain West Ambulance. Fire protection agreements have been made with the Tooele City Fire Department, Grantsville Fire Department, and Stockton Fire Department. Other emergency services have been coordinated through the Tooele County Sheriff.